



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)
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Faculty Name : Dr. L. Prasanna Kumar

Subject : CLOUD COMPUTING

Course :B.Tech. Branch : CSE (2017-2018 AY)

Year:IV Semester :II

Unit-1

- 1)a) Illustrate the evolution of HPC and HTC systems (6 M)
b) Write a note on The Internet of Things and Cyber-Physical Systems(4 M)
- 2)a) What are the advanced technologies in CPU Processors?(5 M)
b) How GPU Programming model works(5 M)
- 3)a) Describe Clusters of Cooperative Computers-5M
b) Explain Peer-to-Peer Network families-5 M
- 4) a) What is SOA? explain-5 M
b) What are the trends toward Distributed operating systems- 5 M
- 5) a) Write the Dimensions of Scalability-5 M
b) What are the Network threats and Data integrity-5 M

Unit-2

- 1)a) What are the different levels of Virtualization implementation-5M
b) Discuss about middleware support for Virtualization-5M
- 2)a) Explain Xen Architecture-4 M
b) Explain Full virtualization and host-based virtualization-6 M
- 3) Explain the following
a) CPU Virtualization-3 M b) Memory Virtualization-4 M c) I/O virtualization-3m
- 4)a) Explain Physical versus Virtual Clusters-5 m
b) Describe Migration of Memory, Files and Network resources-5 m
- 5)a) Explain Virtual storage management-4 m
b) Discuss OS for virtual data centers-6 m

Unit-3

- 1)a) Explain different types(public,private,hybrid) clouds-5m
b) Describe cloud ecosystems-5m
- 2) Explain the following-10m
a) IaaS b) PaaS c) SaaS
- 3)a) Discuss a generic Cloud Architecture-5 m
b) Discuss Layered Cloud Architectural Development-5 m
- 4) Explain the following public cloud platforms
a) GAE b) AWS c) AZURE
- 5) a) what is virtual machine creation and management-5 m
b) describe various cloud security defense strategies-5

Unit-4

- 1) A) What are the Cloud Capabilities and Platform Features (5 M)
B) What are the Data Features and Databases (5 M)
- 2) A) Explain Parallel Computing and Programming Paradigms(4 M)
B) What is MapReduce, Twister and Iterative MapReduce?(6 M)
- 3) A) Write about Programming environment for Google AppEngine(4 M)
B) Explain Google File System(6 M)
- 4) A) Describe Programming on Amazon EC2 (5 M)
B) Write the features of the Azure cloud Platform(5 M)
- 5) A) Explain Emerging Cloud Software Environments(10M)

Unit-5

- 1) A) What are the policies for Resources Management Applications (6 M)
B) Describe the stability of a Two Level Resource Allocation Architecture(4 M)
- 2) A) What is Feedback Control Based on Dynamic Thresholds (5 M)
B) Discuss Coordination of Specialized Autonomic Performance Managers (^ M)
- 3) A) What is Resource Bundling? Discuss? (6 M)
B) Explain Fair Queing?(4 M)
- 4) Explain Various Algorithms for Computing Clouds(10 M)
- 5) A) Explain Start Time Fair Queing(5 M)
B) What is Cloud Scheduling subject to Deadlines (5 M)

Unit-6

- 1) Discuss the Evolution of storage technology (10 M)
- 2) A) What are the various storage models (5 M)
B) Explain systems and database(5 M)
- 3) Discuss the following: (5 + 5)
A) Distributed File System B) General parallel file systems
- 4) A) Describe the Google File System (6 M)
B) Describe Apache Hadoop (4 M)
- 5) Explain the following (5 + 5)
A) BigTable B) Megastore

Department of Computer Science & Engineering
QUESTION BANK (Academic Year 2017 - 18)

Faculty : Miss K.V. Ramani, Sr. Asst.Prof, CSE

Course: B.Tech

Branch: CSE

Year/Sem: IV-II

Subject: Distributed Systems

Code: RT42051

Regulation: R13

UNIT – I

- 1) a) What are the transparencies which can be observed in distributed system? List the basic transparencies which need to be supported by the distributed system. – 5 Marks
b) How is Distributed OS different from Network OS? – 5 Marks
- 2) a) Consider that railway reservation system is implemented using distributed environment. List out the possible types of transparencies need to be incorporated in this system. Justify your answer. – 5 Marks
b) Discuss the design issues in Intranet. – 5 Marks
- 3) a) Explain the Differences between intranet and internet. – 5 Marks
b) Describe details about architectural model. – 5 Marks
- 4) a) Explain the two types of resource management in distributed system. – 5 Marks
b) Give the characteristics and goals of centralized OS, Network OA & Distributed OS. – 5 Marks
- 5) a) Discuss various issues and challenges involved in the implementation of Distributed Systems. – 5 Marks
b) What are the significant factors affecting the interacting processes in a Distributed System? How the interaction model deals with the difficulty of setting time limits in a Distributed System? Explain. – 5 Marks

UNIT – II

- 1) a) What are stub and skeleton and why are they needed in remote procedure calls? – 5 Marks
b) What are the design issues of RPC? – 5 Marks
- 2) How is TCP stream communication and UDP datagram communication done using Sockets?
Explain in brief. – 10 Marks
- 3) a) Explain external data representation and marshalling concepts in detail. – 5 Marks
b) What is group communication? What are the key areas of applications of group communication? Explain the programming model for group communication. – 5 Marks
- 4) a) What is object serialization? How does Java serialize objects? – 5 Marks
b) What is XML? Explain the following with respect to XML: Entities, Attributes, Names, Binary Data, CDATA, XML Prolog, Name spaces and schemas. – 5 Marks
- 5) a) List and Explain the various socket primitives used in TCP stream communication. – 5 Marks
b) What is meant by Multicast transmission in Distributed Systems? Explain some of the important applications of Multicast Transmission in Distributed systems. – 5 Marks

UNIT – III

- 1) a) Discuss the system calls which are used to provide the communication between related processes and arbitrary processes. – 5 Marks
b) What is 'registry' in Java RMI? – 5 Marks
- 2) a) List several ways to invoke a method on a remote object. – 5 Marks
b) How is RMI implemented in Java? Discuss about the interface and parameter passing semantics of Java. – 5 Marks
- 3) a) How is RMI implemented in Java? Discuss about the interface and parameter passing semantics of Java. – 5 Marks
b) What is 'registry' in Java RMI? – 5 Marks
- 4) a) What is remote method invocation? What are the commonalities and differences between RPC and RMI? – 5 Marks
b) What are the design issues for RMI? – 5 Marks
- 5) a) With a neat sketch, Explain the implementation of Remote Method Invocation. – 5 Marks
b) Why distributed garbage collection is important? Explain the Distributed garbage collector algorithm. – 5 Marks

UNIT -IV

- 1) a) What are the different server threading architectures? – 5 Marks
b) How are the performance of threads measured? – 5 Marks
- 2) What is a micro kernel? What is the role of micro kernel? How does MACH and Chorus work? – 10 Marks
- 3) a) How are the invocations between address done with respect to system call, RPC/RMI with in the same computer and RPC/RMI on different computers? – 5 Marks
b) What is a light weight RPC? Explain in brief. – 5 Marks
- 4) a) What is copy on write? Explain. – 5 Marks
b) What is Asynchronous operation? Explain with respect to CORBA and QRPC. – 5 Marks
- 5) a) Explain the general architecture of operating systems for Distributed Systems. – 5 Marks
b) What is an Execution environment? Explain in detail about the process execution environment. – 5 Marks

UNIT -V

- 1) a) Give the requirements of Distributed file system. – 5 Marks
b) Distinguish between IP and overlay routing for peer-to-peer applications. – 5 Marks
- 2) a) What is Napster peer-to-peer file sharing? – 5 Marks
b) Discuss shortly about Routing overlay. – 5 Marks
- 3) a) Demonstrate Napster file system with examples. – 5 Marks
b) Explain distributed mutual exclusion with suitable algorithms. – 5 Marks
- 4) a) Why is global clock important in a distributed system? Why this is an issue? How this can be realized? – 5 Marks
b) Elaborate any three election algorithms. Use diagrams wherever necessary. – 5 Marks
- 5) a) Explain the main tasks of Routing Overlays. – 5 Marks
b) What are the requirements for Distributed Mutual Exclusion? Explain any one mutual exclusion algorithm in Distributed systems. – 5 Marks

UNIT –VI

- 1) a) Define concurrency control and explain its need in any transaction. What are the major goals and mechanisms of concurrency control? – 5 Marks
b) Give an example to Nested Transaction. – 5 Marks

- 2) a) How are transactions recovered in distributed systems? What are the tasks or recovery manager?. – 5 Marks
b) What is a Phantom DeadLock? – 5 Marks

- 3) a) How is recovery of two-phase commit protocol done in a distributed transaction? Explain. – 5 Marks
b) Explain the role of co-ordinator in distributed transaction. – 5 Marks

- 4) a) What are the different ways to control concurrency in distributed transactions? Explain with examples. – 5 Marks
b) What is distributed deadlock? Explain with example. – 5 Marks

- 5) a) Explain about the requirements for replicated data. – 5 Marks
b) With a neat diagram, explain the basic architectural model for the management of Replicated data. Write the importance of concurrency control in distributed systems. – 5 Marks

Department of Computer Science & Engineering
QUESTION BANK (Academic Year 2017 - 18)

Faculty : Prof. Dr. K. Amarendra, Vice Principal, CSE

Course: B.Tech	Branch: CSE	Year/Sem: IV-II
Subject: Human Computer Interaction	Code: RT42053A	Regulation: R13

UNIT – I

- 1) a) Explain the usability measures, which focus on efficiency, and satisfaction, to do practical evaluation - 5 Marks
b) Explain about User-interface software tools - 5 Marks
- 2) a) Describe five main issues that may affect the design, implementation or marketing - 5 Marks
b) Explain Shneiderman's three pillars of design - 5 Marks
- 3) a) Explain in detail about the usability measures. - 5 Marks
b) Discuss the organizational design to support usability. - 5 Marks
- 4) a) Why do we really want usability? Explain with suitable examples. - 5 Marks
b) Discuss the Social impact statement for early design review. - 5 Marks
- 5) a) Discuss the usability goals for requirement analysis. - 5 Marks
b) Explain the six stages of LUCID development methodology. - 5 Marks

UNIT – II

- 1) a) Explain about Menus for long lists . - 5 Marks
b) Explain the Form-filling design guidelines. - 5 Marks
- 2) a) Discuss the classification of Menus - 5 Marks
b) Provide three examples of an application where menu selection and form filling are more appropriate than a direct-manipulation strategy - 5 Marks
- 3) a) Explain the various strategies for combining multiple Menus. - 5 Marks
b) What are the application domains that exist for devices with small displays? Explain with examples. - 5 Marks
- 4) a) Explain the various guidelines for designing dialog boxes. - 5 Marks
b) Discuss about the menus for long lists with examples. - 5 Marks
- 5) a) Discuss the techniques available to accelerate the fast movement through menus. - 5 Marks
b) Explain how the content organization issues in menus can be reviewed through design guidelines. - 5 Marks

UNIT – III

- 1) a) Explain the Command-Organization Strategies - 5 Marks
b) Explain the Speech and Auditory Interfaces - 5 Marks

- 2) a) Elaborate on various pointing devices - 5 Marks
b) What are the various abbreviation strategies and also discuss on abbreviation guidelines - 5 Marks

- 3) a) List and explain the strategies for command organization. - 5 Marks
b) Describe about discrete word recognition and continuous speech recognition in detail. - 5 Marks

- 4) a) Describe the Speech digitization and generation. - 5 Marks
b) Explain the system functionality to support users' tasks. - 5 Marks

- 5) a) Discuss the guidelines for using abbreviations in Command Languages. - 5 Marks
b) Explain briefly about the features of following key board layouts: - 5 Marks
 - (i) QWERTY layout
 - (ii) DVORAK layout

UNIT –IV

- 1) a) Give a brief overview of Quality of Service (QOS). - 5 Marks
b) Discuss about User Productivity. - 5 Marks

- 2) a) Write Short Note on - 5 Marks
 - 1) User Centered Phrasing
 - 2) Appropriate Physical Format
b) What are the three primary factors which influence user's expectations & attitudes? - 5 Marks

- 3) a) Write about display design. - 5 Marks
b) Write note on Window design. - 5 Marks

- 4) a) Explain in detail about Webpage design. - 5 Marks
b) Write in detail about color. - 5 Marks

- 5) a) Explain about Non anthropomorphic design. - 5 Marks
b) Write in brief about Error Messages. - 5 Marks

UNIT –V

- 1) a) What are the advantages and disadvantages of having online documentation in contrast to paper documentation. - 5 Marks
b) Write about Minimal Manuals. - 5 Marks
- 2) a) Write short note on - 5 Marks
1) Online Tutorials 2) Animated Demonstration & Multimedia
b) How context sensitive help is performed. - 5 Marks
- 3) a) Write in brief about Special Populations. - 5 Marks
b) Write short notes on the following. - 5 Marks
1) Online Documentation 2) Online Help
- 4) a) Explain in detail the reading from paper Vs from displays. - 5 Marks
b) List the guide lines for development process - 5 Marks
- 5) a) Explain about online communities for user assistance. - 5 Marks
b) Describe about User documentation. - 5 Marks

UNIT –VI

- 1) a) Explain in detail the searching in textual documents & Database Querying. - 5 Marks
b) Discuss advanced filtering & Searching Interfaces. - 5 Marks
- 2) a) What is Multimedia document searches. - 5 Marks
b) Write in detail about 7 data types. - 5 Marks
- 3) a) What are the various challenges that information visualization researchers need to face to create successful tools. - 5 Marks
b) Discuss in short data types by task taxonomy. - 5 Marks
- 4) a) Give a brief overview of information visualization. - 5 Marks
b) Give the overview of information search. - 5 Marks
- 5) a) Explain about challenges for information visualizations. - 5 Marks
b) Write in detail about 7 data types. - 5 Marks



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Department of Electronics and Communication Engineering

IV B.Tech (CSE) Sem-II QUESTION BANK

Subject: **Management Science (R13)**

Faculty: **A. Kiran Kumar, Sr. Asst. Professor, MBA Department**

I UNIT

1. a) What is the significance of Hawthorne experiments for management?
b) Define Management and explain its functions.
2. a) Define Management? Explain Henry Fayol's principles of management
b) Differentiate between behavioral approach and scientific approach to management.
3. a) Explain the nature of management.
b) What are the challenges you have to face as a manager.
4. a) Describe the theory of scientific management and explain how it was criticized.
b) What is matrix organization and what is its uniqueness.
5. a) Why is management considered as a profession and what factors make it a profession?
b) Distinguish between Theory – X and Theory – Y
6. a) What is motivation? Explain Abraham Maslow's needs Hierarchy theory.
b) What do you mean by Functional organization structure? What are the advantages and disadvantages?

II UNIT

1. a) Describe the basic procedure to be followed in adopting work study techniques for Sound results
b) What is inventory? Explain the need for inventory control
2. a) What do you mean by EOQ? derive the formula for determining the EOQ.
b) Define control charts and explain its types
3. a) What is meant by materials management? state its advantages and disadvantages.
b) Explain the types of ABC analysis.
4. a) What is meant by integrated Materials Management? State its advantages
b) Discuss about various types of p chart, r chart.
5. What is statistical quality control? How is this important in operations management

III UNIT

1. a) State the importance and methods of job evaluation.
b) Define training and explain its methods.
2. a) What do you understand by marketing mix?
b) Explain briefly the basic elements in marketing mix
3. a) Explain the functions of personnel management
b) Evaluate the different sources of recruitment
4. a) What do you understand by Human Resource Management?
b) Define Human Resource Development? Outline its concept.
5. a) Define Human Resource Management. Explain its functions
b) What are the differences between Human Resource Management and Personal Management and Industrial Relations?
6. a) Discuss in brief about various wage payment plans? Are they relevant in present day Context.
b) What is product life cycle? Describe its stages.

IV UNIT

1. From the following information:
 - a) Draw the project network and find critical path.
 - b) Calculate earliest starting times and earliest finished times for each activity.
 - c) Determine Total, Free and Independent floats.

Activity	Immediate Predecessor	Duration
A	-	3
B	-	4
C	A	5
D	A	7
E	B,C	3
F	B,C,D	6

2. From the following information:
 - a) Draw the network
 - b) Find its critical path and project duration

c) Determine Total, Free and Independent Floats.

Activity	Duration
1-2	5
1-3	4
2-4	6
3-4	2
4-5	1
4-6	7
5-7	8
6-7	4
7-8	3

3. From the following data crash the network and identify the optimum time of the project where the indirect cost is estimated Rs. 60 per day.

Activity	normal time	Crash time	Cost slope
1-2	9	6	20
1-3	8	5	25
1-4	15	10	30
2-4	5	3	10
3-4	11	6	15
4-5	2	1	40

4. From the following information:

- Draw the PERT network
- Find variance for each activity
- Find variance and standard distribution for critical path
- What is the probability that the project will be completed in 23 days?
- Find Total, Independent and Free floats?

Activity	To	Tm	Tp
1-2	3	3	3
2-3	3	6	9
2-4	2	4	6
3-5	4	6	8
4-6	4	6	8
5-6	0	0	0
5-7	3	4	5
6-7	2	5	8

- What is CPM? Discuss its advantages and limitations.
 - Distinguish between PERT and CPM.

6. a) What is PERT? State its advantages and limitations
- b) What is CPM? Explain its advantages.

V UNIT

1. (a) How do you formulate and implement strategy? Explain
- (b) What is the need for corporate planning process?
2. (a) What are the factors of external and internal environmental to be considered for formulating the strategy? Explain.
- (b). Explain various generic strategy alternatives in detail
3. (a) Define strategic management and describe the process of strategic management.
- (b) How do you carry out SWOT analysis for a manufacturing unit?
4. (a) What do you understand by the concept of strategy? Discuss the concept of Mission and Vision.
- (b). Discuss corporate planning process.
5. (a). Explain various external environment scanning techniques used by the organization
- (b) What is environmental scanning? How is this important in present day context.

VI UNIT

1. Write a notes on:
 - (a) Capability Maturity Model
 - (b) Balanced Score card.
2. Write a notes on :
 - (a) Supply Chain Management
 - b) Performance Management.
- 3 (a) What is Enterprise Resource Planning? Explain
- (b) Explain the merits and demerits of Enterprise Resource Planning.
4. (a) define total quality management and explain its significance.
- (b) Write notes on six sigma
5. Write a short notes on:
 - (a) Management Information System
 - (b) Bench Marking.
6. Discuss the following;
 - a) Supply Chain Management
 - b) Enterprise Resource Planning